



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,527	02/11/2002	Subrata Mokerji	500-3013-U	6146

7590 07/27/2004

MCDONALD, HOPKINS, BURKE & HABER CO.  
2100 BANK ONE CENTER  
600 SUPERIOR AVENUE, E.  
CLEVELAND, OH 44114-2653

EXAMINER

PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

S.C.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/073,527		MOKERJI, SUBRATA	
	<b>Examiner</b>		<b>Art Unit</b>	
	Andrew T Piziali		1771	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 May 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 45-63 is/are pending in the application.
- 4a) Of the above claim(s) 1, 45-47, 52-59, 62 and 63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 48-50 and 60 is/are rejected.
- 7) ☒ Claim(s) 51 and 61 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on 5/26/2004 has been entered. The examiner has withdrawn all rejections based on Welty due to earlier effective filing date of the current application. The examiner has withdrawn all the previous rejections based on Gibbons based on the amendments to the claims.

### ***Election/Restrictions***

2. Newly amended claims 1, 45-47, 52-59 and 62-63 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: This application contains claims directed to the following patentably distinct species of the claimed invention:

Species 1 is drawn to a coating comprising a first polymeric layer, a second metal layer, and a third metal compound layer.

Species 2 is drawn to a coating comprising a first polymeric layer in direct contact with a second metal compound layer (no metal layer present between the layers).

3. In the originally examined claims (for example, see claims 48 and 60 filed on 7/16/2002) the applicant claimed a coating comprising a first polymeric layer, a second metal layer, and a third metal compound layer. The applicant failed to originally claim a coating wherein the polymeric layer is in direct contact with the metal compound layer (no second metal layer

Art Unit: 1771

present between the layers). By originally presenting claims drawn to an article with a metal layer between the polymeric layer and the metal compound layer, while not originally presenting claims drawn to an article comprising the polymeric layer in direct contact with the metal compound layer (no second metal layer present between the layers), the applicant elected, by original presentation, Species 1 wherein the coating comprises a first polymeric layer, a second metal layer, and a third metal compound layer.

4. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 1, 45-47, 52-59 and 62-63 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 48-50 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,083,780 to Walton et al. (hereinafter referred to as Walton) in view of USPN 6,196,936 to Meckel.

Regarding claims 48-50 and 60, Walton discloses a metallic golf club shaft that is coated on at least a portion of the surface with a level polymeric layer (see entire document including column 2, lines 38-60). Walton does not mention a layer comprised of a Zr compound, Ti compound, or Zr/Ti alloy compound, but Meckel discloses a wear-resistant, impact-resistant,

Art Unit: 1771

colorful coating for golf club shafts (see entire document including column 1, lines 8-24 and column 2, lines 11-12). Meckel discloses that the coating can comprise a layer of Ti or Zr and a layer of Ti or Zr nitride and/or carbide directly on the Ti or Zr layer (column 1, line 61 through column 2, line 50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the wear-resistant, impact-resistant, colorful golf club shaft coating of Meckel on the golf club shaft taught by Walton, because the coating would provide improved wear-resistant and impact-resistant to the golf club shaft.

Regarding claim 49, Walton discloses that the polymeric material may be ABS (acrylonitrile-butadiene-styrene) or the like (column 3, lines 37-58).

Regarding claim 50, Meckel discloses that the compound may be a nitride and/or carbide of Ti or Zr (column 2, lines 7-17 and column 24-38).

7. Claims 48-50 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,425,535 to Gee in view of USPN 6,196,936 to Meckel.

Regarding claims 48-50 and 60, Gee discloses a metallic golf club head that is coated on at least a portion of the surface with a polymeric layer that levels the surface of the golf club head (see entire document including column 2, lines 16-38, column 3, lines 42-61, column 4, lines 34-50, and Figure 5). Gee does not mention a layer comprised of a Zr compound, Ti compound, or Zr/Ti alloy compound, but Meckel discloses a wear-resistant and impact-resistant coating for golf club shafts (see entire document including column 1, lines 8-24 and column 2, lines 11-12). Meckel discloses that the coating can comprise a layer of Ti or Zr and a layer of Ti or Zr nitride and/or carbide directly on the Ti or Zr layer (column 1, line 61 through column 2, line 50). It would have been obvious to one having ordinary skill in the art at the time the

Art Unit: 1771

invention was made to apply the wear-resistant and impact-resistant gold club shaft coating of Meckel on the golf club head taught by Gee, because the coating would provide wear-resistant and impact-resistant to the golf club head.

Regarding claim 49, Gee discloses that the polymeric material may be ESTALOC™ (polyester based) or the like (column 4, lines 34-50).

Regarding claim 50, Meckel discloses that the compound may be a nitride and/or carbide of Ti or Zr (column 2, lines 7-17 and column 24-38).

#### ***Allowable Subject Matter***

8. Claims 51 and 61 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The closest prior art is USPN 5,083,780 to Walton in view of USPN 6,196,936 to Meckel or USPN 5,425,535 to Gee in view of USPN 6,196,936 to Meckel, but the prior art fails to teach or suggest the claimed protective layer.

#### ***Response to Arguments***

10. Applicant's arguments have been considered but are moot in view of the new grounds of rejection.

11. It is noted that the applicant asserts that a conclusion was reached regarding the allowance of all the claims subject to the amendments discussed in the interview on 3/12/2004. The examiner respectfully disagrees. No conclusion was reached with regards to the patentability of the claims. The examiner indicated that the discussed amendments appeared to overcome the current rejections but that further consideration and/or search would be necessary.

Art Unit: 1771


***Conclusion***

12. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

  
TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

atp

*g7B - 2/14/04*  
**ANDREW T. PIZIALI**  
**PATENT EXAMINER**

*Terrel Morris*  
**TERREL MORRIS**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1700**